THE NEW HOUSE OF COMMONS.

We reported a few weeks ago the rapid approach of the House of Commons, in Mr. Barry's new Palace of Parliament, towards completion, and have now the pleasure of placing before our readers the first engraved view of it. The drawing is made looking towards the north, or speaker's end, with the "bar" of the House in the foreground. The ceiling is divided into eighteen compartments by moulded ribs, each space being again subdivided into panels. Over the speaker's chair is the reporters' gallery, formed like the other fittings throughout, of oak, and left of its natural colour. There is a metal railing above the front of the gallery. The traceried openings seen above the speaker's chair will be filled in with open metal-work, to screen a gallery to which ladies will be admitted. At the bar end is a much larger gallery for strangers. The floor of the House is of iron, perforated for the purpose of ventilation. The windows will be filled with stained glass; but there are no coloured decorations.

The length of the chamber is 62 feet, the width 45 feet, and the height 45 feet; nearly one-third less in length, therefore, than the House of Lords, which has the same width and height, and is a double cube.

The Commons' lobby, south of the bar, has a similarly-formed ceiling, in nine main divisions.

The connection of the Houses of Parliament with Westminster Hall, by means of an enormous archway nearly the whole height of the hall, is formed, although the steps are not yet constructed, and justifies our anticipations of its fine effect. This communicates with St. Stephen's Gallery,—the stonework of which is being cleaned down. The groin vaulted roof of this gallery is a fine piece of work.* The restoration of the Cloisters is being proceeded with: the beauty of the old work there is marvellous. From 300 to 400 men, in the whole, are at present engaged on the building.

COVENT GARDEN CHURCHYARD.

Though only a journeyman mason, I am a constant reader of your valuable periodical; and I may say, with *many* of my class, that I have been instructed, benefited, and encouraged by your remarks on the present condition, and suggestion for the improvement of the dwellings of the poor, which show us we are not *entirely* neglected and forgotten by our superiors, and that "better days are coming." The desecration of human remains from Covent Garden Churchyard, exposed in your publication of last week, and my having relations buried in that ground, caused me to make inquiry, and I find the facts were *worse* than your correspondent represented them. Surely such a *public outrage* on the feelings of humanity will cause inquiry to be made, as to the authors of such a scandal in the heart of the metropolis of the world. Will you be so kind, Sir, as to ease the feelings of a poor working man, by informing him whether there is any protection afforded for the remains of those buried in *consecrated ground*? or whether we are to reflect that, in after ages, our remains may be taken from where laid, and scattered about the streets, to make room for a brick grave, when required.

JOSEPH RUTHERFORD.

*** We are able to state that the General Board of Health have directed Dr. Gavin Milroy to inquire officially into the circumstance mentioned by our correspondent.

PAINT FOR IRONWORK.—In reply to the inquiry of a correspondent, who asks what is the best covering to preserve wood and ironwork composing a suspension bridge, I beg to say that I have used with success two coats of red lead (minium or deutoxide of lead). A short time since, being on board a foreign steamer, I cut from the surface of the paddle-wheel the red paint, and found the ironwork bright and in no part injured by rust, excepting where the paint had been accidentally chipped off. A. B.

* St. Stephen's Gallery has eight large compartments beneath the windows for frescoes.

ON THE MANUFACTURE OF GLASS, AND ITS APPLICATION TO ARCHITECTURAL PURPOSES.*

The glass of commerce — that beautiful manufacture to which the generic name is most commonly applied—is always composed of some siliceous earth, the fusion and vitrification of which has been occasioned by the action of intense heat, when the silex is combined with certain alkalies, metallic oxides, or earths, and sometimes with the aid of metallic oxides. In fact the article becomes a silicate, and may be termed a silicate of potash and soda, a silicate of alumina, a silicate of lime, &c., according as one or other of such substances predominates in combination with the silex. There are four different and distinct qualities of glass manufactured for domestic purposes, viz.:—1. Flint glass, or crystal; 2. Crown and German sheet glass; 3. Bottle or common green glass; and 4. Plate glass. The materials and processes used in making these form the subject of our present inquiry.

Each of the four descriptions contains two ingredients, which, indeed, are essential to their formation, silex and an alkali. The variations of quality, and distinctive differences observable in glass, principally result from the kind of alkali employed, and its degree of purity, as well as from the addition of other accessory materials; such as nitre, oxide of lead or of manganese, white oxide of arsenic, borax, or chalk.

The following may be considered as the average proportions [illegible] materials employed in the various [illegible] glass:—

Flint Glass, or [illegible]

Sand	[illegible]	58
Potash	[illegible]	19
Litharge	[illegible]	17
Nitre	[illegible]	6
	100	100

Crown or Sheet Glass.

Sand	38.5
Carbonate of lime	14.5
Carbonate of soda, 40 per cent. pure; or Sulphate of soda, 95 per cent. pure	18.0
Cullet	29.0
	100

If sulphate of soda be used, add charcoal 10lbs.

Bottle or Common Green Glass.

Sand	57	53.5
Lime	22	
Brickdust	14	13.5
Refuse of alkali works, or Hxivium of soda		33
Silt	7	
	100	100

Black oxide of manganese has been long used for clearing glass from any foul colour, which it might accidentally possess through the impurity of the alkali employed, and in particular from that green tinge which marks the presence of iron. This property of manganese, when in the form of an oxide, occasioned it to be anciently known as glass soap, a name which very accurately describes it use.

These materials having been properly melted, the following is the process followed for making the crown glass:—

The implements used by the glass-blower are few in number, and exceedingly inartificial in their form and construction. The principal one is a hollow iron rod or tube called the pipe, which is about 6 feet 6 long, and 1 in diameter in the centre. At one end it has a handle about 12 inches long, and at the further end a nose: with this the gatherer continually dips the end into the mass of metal, and turning it round takes up a mass about 6-inches in diameter, and revolves it gently round, which makes it assume a spherical shape. He then dips it again into the pot, and takes up another quantity, altogether weighing about 11 or 12lbs., and keeps turning this gently round. He then takes it to the marver, which is a low slab of iron, perfectly level, and called marver from the French "marbre," because it used to be of marble. On this marver the man shapes the mass to a form somewhat like a pear.

It is then taken to another marver, No. 4, where a projecting point is given to it called the bullion, which afterwards becomes what we call the bull's eye. After shaping, it is taken to the blower at the Pattison hole of the furnace, who heats it and then takes it to the third marver, and makes it assume a flask shape. The man then takes it to the furnace to heat the mass, puts it over a rest, and blows it to a [illegible] shape, and uses it in a bullion cup to support the globe against, while it is being blown to the full size.

[illegible] the blowing is effected by a very ingenious instrument, which our man however manages to be prevailed upon to adopt. But it is a very trying operation in some species of articles, as, for instance, the common wine bottles. Kohl, in his "Russia," mentions the following curious anecdote in connection with this subject. The emperor wished to illuminate the Alexander Column in a grand style; the size of the round lamps was indicated, and the glasses bespoken at this manufactory, where the workmen exerted themselves in vain, and almost blew the breath out of their bodies in the endeavour to obtain the desired magnitude. The commission must be executed, that was self-evident, but how? A great premium was offered to whoever should solve this problem. Again the human bellows toiled and puffed, their object seemed unattainable: when at last, a long-bearded Russian stepped forward and declared that he could do it; he had strong and sound lungs, he would only rince his mouth first with a little cold water to refresh them. He applied his mouth to the pipe and puffed to such purpose, that the vitreous ball swelled and swelled nearly to the required dimensions, up to it, beyond it. "Hold, hold," cried the lookers-on, "you are doing too much, and how did you do it at all?" "The matter is simple enough," answered the long beard; "but first, where is my premium?" And when he had clutched the promised bounty he explained. He had retained some of the water in his mouth, which had passed thence into the glowing ball, and there becoming steam, had rendered him this good service.

After being blown to the full size of 20 or 24 inches in diameter, the globe is taken to the bottoming-hole for heating, and blown still larger. It is exposed for the third time to the heat, and made to assume the shape of a flat-bottomed bottle. It is then carried to a rest which is near a cutter's box, so called, probably, because it is used for the next step of breaking off the neck from the other part or flattened sphere. It being put on the rest, a man or boy brings the punty or puntil, which has a piece of the like hot metal on the point or end, which he presses into a small mould to give it the proper shape, and then sticks it lightly upon the bullion, pressing it gently, and both turning together, and thus making the one adhere to the other. The man takes a wooden mallet, the edge of which he dips in the water, and then smears it at the neck where the more solid metal ends and the thin begins. Having so done, he gives a sharp blow with the mallet, and so detaches the pipe from the globe at the neck or nose, where a circular orifice is produced, 2 or 3 inches in diameter, called the nose. The punty sticker then carries the glass to the furnace, constantly revolving it, in order to heat the nose-hole.

After this it is carried to another hole of a furnace, called a flashing furnace, where the entire bottle is gradually warmed, first at the ring and then inside, the man constantly revolving it; the intense heat causes the nose to become very soft and yield to the expansive force of the other part; the revolving motion is increased in rapidity, the aperture gradually enlarges more and more, till the whole expands with a sudden burst or explosive sound into a large disk, about 4 feet 6 inches in diameter, the rim or selvage being somewhat thicker. The sheet is then carried to the chimney, where the punty is detached by the piler with a pair of shears, and the piler and his assistant take it up with a flat fork, called a forchette (from the French), put it into the annealing arch, where it is reared up on its edge, and remains there thirty-six hours, and acquires that hardness which enables it to be applied to the many purposes for which it is required.

The formation of this glass into sheets is thus performed:—The necessary quantity being collected upon the end of the iron tube, as already described, is expanded by the work-

* The substance of a paper by Professor Donaldson, read at the Institute of Architects, and already referred to.

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